



## Geology Merit Badge



### Brief Description

*Geology is the study of Earth. It includes the study of materials that make up Earth, the processes that change it, and the history of how things happened, including human civilization, which depends on natural materials for existence.*

### Outcomes of the Program

1. Scouts will gain a better understanding of the importance that geology plays a part in at Russell Cave.
2. The scouts will learn the formation and estimated time represented during the formation of Russell Cave.
3. The scouts will learn the education it takes to be a geologist and the skills it takes for the Department of the Interior.

<http://www.scouting.org/scoutsource/BoyScouts/AdvancementandAwards/MeritBadges.aspx>



### Weathering Experiment

Try this fun experiment to learn about the weathering of rocks.

#### You will need:

Plastic wrap  
Clay  
A little water  
Notebook  
Camera (optional)

**Step 1:** take the water and moisten the clay a little bit.

**Step 2:** divide the clay into two equal pieces and roll it into a ball or form into a square.

**Step 3:** wrap each piece of clay in plastic wrap.

**Step 4:** place one piece of clay into the freezer and leave the other piece on your table or counter. Let the clay stay in the freezer overnight.

**Step 5:** The next day, take the clay out of the freezer and unwrap both pieces.

#### Observe:

Do the clay pieces look different? If so, how? Hint: the clay from the freezer should have some cracks. Examine the clay with a hand magnifier to get a closer look at the cracks. Write about your findings in a notebook and take pictures if you want.

Then, wrap each clay piece back up and put the one piece back into the freezer and repeat for several days. Observe the clay pieces each day and see how the cracks change over time.

[www.minimegeology.com/home/mgeo/page\\_247/geological\\_weathering\\_experiment.html](http://www.minimegeology.com/home/mgeo/page_247/geological_weathering_experiment.html)

